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THE FOREST WORKER

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FOREST SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE
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THE WEST WORKER

WEST SERVICE
DEPARTMENT OF AGRICULTURE



THE FOREST WORKER

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ANNOUNCEMENTS

Big Meeting at Richmond

One of the largest forestry meetings to be held in the South in years will take place in Richmond on January 6 and 7, when the Southern Forestry Congress and the American Forestry Association will hold a joint convention. The committee in charge of arrangements includes W. D. Tyler, chairman of the forestry committee of the Virginia State Chamber of Commerce; Joseph Hyde Pratt, president of the North Carolina Forestry Association; Ovid Butler and Shirley Allen of the American Forestry Association; and J. G. Peters and A. B. Hastings of the U. S. Forest Service. Headquarters of the convention will be at the Jefferson Hotel.

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New York State Wood-Utilization Conference

The wood-utilization conference to be held at Syracuse University November 12 is planned to bring together timberland owners, foresters, lumbermen, pulp and paper manufacturers, and the owners of wood-using industries throughout the State of New York. The New York State College of Forestry is host for the day sessions and will have exhibits of various forest products and manufacturing processes. The U. S. Forest Products Laboratory will have exhibits and motion pictures. The program includes talks by Axel Oxholm, Chief of the Lumber Division of the U. S. Department of Commerce; Carlile P. Winslow, Director of the U. S. Forest Products Laboratory; William A. Babbitt, Secretary of the National Association of Wood Turners; and Ovid M. Butler of the American Forestry Association. At the evening banquet addresses will be made by Charles Lathrop Pack, President of the American Tree Association, Congressman John D. Clarke, and A. C. Goodyear, President of the Great Southern Lumber Co. Some of the organizations participating in the conference are: The New York State Builders Exchange, New York Lumber Trade Association, Northeastern Retail Lumbermen's Association, National Lumber Manufacturers' Association, American Wood Preservers Association, the Association of Wood-Using Industries, the American Paper and Pulp Association, and the National Association of Wood Turners.

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The Massachusetts Forestry Association announces a New England Forestry Congress to be held in Springfield, Mass., December 10-12.

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The Oklahoma Forestry Commission, which is getting its program under way and hopes to begin active work under the new State law before the first of the year, is looking for a man to serve as State forester.

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Send It In

Every "subscriber" to the Forest Worker must run across at least one interesting and helpful bit of news in the course of the two months between issues. If he would make it a point personally to jot it down and send it in to the editor--an announcement, a personal, a brief account of some development in practical forestry, forest legislation, or fire prevention--he would be more than repaid by the increased interest and usefulness of the Worker.

The best way is to write a letter to the editor at once, before the idea gets cold. It is not necessary to put the story into form for publication. Just give the facts; the editor will do the rest. Of course, original articles are desired, and the Worker is not receiving as many of these as it should from State and private foresters. We realize that a forester is usually overworked and may not often have time for the formal article. But a letter is easy and takes mighty little time. Send it in--the editor will bless you and so will all your colleagues.

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STATE FORESTRY DEPARTMENTS AND ORGANIZATIONS

Association Finances State Forestry in Missouri

The Missouri Forestry Association has made a grant to the State board of agriculture of \$10,000 to finance forestry work in the State during the biennium ending January 1, 1927. Except for this action the forestry department created at the recent session of the State legislature could not operate, since the appropriation made by the general assembly for its support was vetoed by Governor Baker. The Missouri Forestry Association has also made a grant of \$750 to the University of Missouri for farm forestry extension in cooperation with the U. S. Department of Agriculture during the year ending July 1, 1926.

Outlines of a forestry policy and program drafted by the association were adopted by the State board of agriculture. The outline of policy reads in part as follows:

"The first efforts of the department of forestry will be educational and directed toward more adequate appreciation of our need for better forests and how to get them."

"The farmer is the central figure around which the practice of forestry in Missouri will develop."

"The woodlands in Missouri are now in the hands of a large number of owners and the general practice of forestry promises to develop most speedily as a private and not as a public enterprise. There is no special or immediate need for public forests excepting well-distributed model forests none exceeding a few thousand acres in extent."

"Wildfire in the woodlands of Missouri is now causing the decay and loss of enough timber each year to supply all our wood-using industries. The department of forestry will cooperate with local communities, forest owners, county and State agencies, and the Federal Government in the prevention and suppression of wildfire in the woods."

Activities by the State department of forestry began on September 1. Frederick Dunlap is serving both as State forester and as forester of the agricultural extension service.

Forestry Reawakens in Delaware

The Legislature of Delaware at its recent session passed a law providing for the appointment of a commission of four to "make investigations concerning the preservation and conservation of Delaware forests" and to "report to the General Assembly of the State of Delaware at the next session the results of their investigations and make such recommendations as they may deem necessary." No funds were provided except for the printing of the report of the commission.

George W. Butz^{Jr.} and Willard Springer have been appointed members of this commission. Mr. Butz, a graduate of the Biltmore Forest School, is in the lumber business. Mr. Springer is a graduate of the Yale Forest School and was at one time a forester with the Pennsylvania Railroad.

Delaware had an official investigation of its forestry situation as long ago as 1907, and in 1909 its legislature enacted a very good forestry law--but without making any appropriation. That law was repealed in 1921 to make way for one giving the State board of agriculture authority over forestry work.

These past efforts indicate that forestry sentiment has been in existence in the State for a long time. The problem of the new commission is to bring this sentiment into activity, especially in the direction of a reasonably adequate legislative program. The commission is planning to carry on an educational campaign through newspaper publicity, public lectures, and meetings with the State grange, the Parent-Teachers' Association, chambers of commerce, women's organizations, and local clubs.

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Forestry Courses and State Nursery for North Carolina

North Carolina this year establishes its first State forest nursery and the first forestry courses in its State college. The State College at Raleigh and the North Carolina Department of Conservation and Development are sharing the expenses of providing land for a nursery, paying a forester to take charge of it, and carrying out an educational campaign to encourage better management of farm woodlots. In the distribution of planting stock from the nursery to farmers the State will avail itself of Federal assistance offered through the Clarke-McNary Law. F. H. Claridge, a graduate of the Yale School of Forestry, has been appointed to the position of State forest nurseryman and instructor in forestry in the State college.

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Georgia Forestry Work Organized

The Georgia State Board of Forestry met to organize on September 17. A committee of three was appointed to investigate the subject of income for the board and to nominate a State forester. Also a committee of five was given authority to cooperate with the Georgia Forestry Association.

B. M. Laiburrow, supervisor of the Alabama National Forest, has since been appointed to the position of State forester, and took office on October 15. Mr. Laiburrow is a native Georgian and received his training in forestry at the University of Georgia Forestry School, graduating in 1914. He has been a member of the U. S. Forest Service since 1915, with the exception of two years spent in France with the forestry regiment. He became supervisor of the Alabama National Forest in 1919.

The new State forester is faced with emergency conditions. Owing to the extended drought from which Georgia has suffered this summer, the opening fall and winter fire season will be one of great hazard.

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Planting Enthusiasm in New York

Ten million forest tree seedlings were distributed in New York State this spring--two million more than in any previous year. In at least 10 counties the beginnings of county forests were made. On Arbor Day the East Aurora Rod and Gun Club set out 170,000 trees on farms of Erie County, and business came to a standstill in East Aurora because practically every available person, young or old, was planting trees. The Broome County Sportsmen's Association distributed 50,000 trees among the county school districts for the establishing of school forests. Children planted 100,000 trees in school and Boy Scout forests. Farmers set out more than 500,000 along the highways of the State under the direction of the local farm bureaus, and bought a million for farm planting.

The New York State Conservation Commission announces that it will have 30 million seedlings available for 1926. In cooperation with the railroads, it plans to offer free transportation of planting stock next spring to forest-land owners in any county who will arrange to pool their orders so that shipment can be made to a single point within the county. One county preparing to take advantage of this offer already has 400 orders of not less than 1,000 trees each.

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Progress in New Hampshire

New Hampshire has made progress in several lines of forestry activity this year. One of its new laws provides for partial relief from taxation for a period of 30 years of lands not exceeding \$25^{an acre} in value when planted to forest trees. The slash disposal law has been amended to require disposal of slash within 30 days after cutting. Woodlands may be closed to all persons whose presence is deemed to be a danger to them during periods of extreme drought, and when they are closed it is made a violation of law to drop lighted matches, cigars, cigarettes, or other articles likely to cause fires within 200 yards of any forests or woodlands, whether or not such act actually causes fire, the violation being punishable by \$50 fine and costs. All portable sawmills must be registered with the State forester and equipped with approved spark arresters, and slash must be removed 100 feet from all portable mills.

New Hampshire has during the year purchased State forests aggregating 18,000 acres, and has appropriated \$200,000 for the purchase of Franconia Notch.

In response to a letter sent out by the State forester in 1924, 38 towns have now appointed committees to look into the feasibility of establishing town forests. Many of these have reported, and 7 towns have appropriated money to buy forest sites or to plant areas already owned. This makes a total of 31 town forests in the State.

The New Hampshire Lumbermen's Association has undertaken a survey to inform lumber producers of all possible outlets for their particular products and otherwise to bring about a more stable condition of the lumber industry. Wood-working and lumber-using firms in all parts of the State are being visited and special efforts are being made to learn how much and what kinds of lumber are being shipped from outside sources. Richard T. Fisher, Director of the Harvard Forest at Petersham, Mass., is cooperating with the association in this survey, and his assistant Mr. A. C. Cline is doing the necessary field work.

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Winnebago County, Illinois, has organized under the State's forest reserve law and now devotes \$60,000 a year to the purchase and maintenance of county forests. It has acquired six forests, employs a county forester with two assistants, and is putting in a nursery. No timber has as yet been sold from these forests. They are all game refuges and are popular as recreation grounds.

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Two Big Forestry Laws for Porto Rico

The Legislature of Porto Rico this year enacted two forestry laws. The first provides for reduced taxation of lands which are being reforested. In order to secure the benefits of this law a landholder must (1) plant forest trees on not less than 5 cuerdas (2 acres) of land from which the original forest has been removed, prior to July 1, 1930; (2) plant not less than 600 trees per cuerda (1,500 trees per acre), distributing them correctly; and (3) agree to continue to care for and cultivate his plantation during a period of five years. Lands for which tax exemption is claimed will be inspected by the forest service of the insular department of agriculture and labor, and if the claim is approved will be inspected by it at least once a year while the exemption remains in effect. If the department of agriculture and labor reports favorably to the treasurer the lands will be assessed at the rate of \$1.00 per cuerda (\$2.50 per acre) for the five fiscal years succeeding the application. An adverse report by the department at a later date will result in cancellation of the lower assessment.

The second Porto Rican forestry law of the year provides for a study by the department of agriculture and labor of a practical plan for the proper development and distribution of forests along the coast and in the interior of the island, with special consideration of watershed protection; for the acquisition by purchase, grant, legacy, or expropriation of forest lands, timbered or untimbered, to become part of a system of insular forests; and for a bond issue of \$50,000 to cover the expenses of acquiring, planting, and improving these forests.

The decision of the Porto Rican government to spend \$50,000 on forests and forestry has considerable significance in view of the size of the island and its financial limitations. Official estimates place the wealth of Porto Rico at about \$300,000,000, which is much less than that of any of the States.

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Emergency Fire Protection Day in Alabama

A "Special Forest Protection Day" was observed on October 16 in Alabama, where great damage has been done to the forests within the past year by fire and drought. In his proclamation designating this day the governor requested, among other things, that operators of engines and boilers using wood and coal make a special inspection of all spark-arresting devices, and that railroad authorities, highway crews, land clearers, and all other persons discontinue the use of fire in the open for any purpose during the existing drought. He urged that the day be observed in all schools of the State.

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The Governor of North Carolina on Fire Protection

Governor Angus W. McLean of North Carolina has made a personal study of forest protection conditions in his State, and has given out an extended statement on the subject which reads in part as follows:

"This whole region [the western part of the State] is interested not only in timber production, for which it is admirably adapted, but perhaps even more in recreation, namely, furnishing interest and amusement, to the hundreds of thousands of visitors who annually spend more and more time and money in both the mountain towns and country. If the people ***** realized the close connection between the tourist trade and the prevention of forest fires there would be no need to enact laws and bring prosecutions against those who set fire or refuse to fight it. The indifference of the residents of the towns is as hard to overcome and even harder to understand than the occasional antagonism of the rural people.

"Forest fires have not been confined to the mountain region nor is the advantage of fire prevention any greater there than in the other parts of the State. The growing of pine as a crop may be better adapted to eastern North Carolina than to the upland region, but if so landowners have failed to recognize this advantage. Fires continue to burn unhindered in most of the Coastal Plain counties, though fortunately 11 counties are now cooperating with the State in its effort to reduce the fire damage. The stands of young growth and pine seedlings are decimated by annual fires and instead of raising a full crop of timber, or all the land is capable of using, one more frequently finds one-half a crop or less. Now that the destructive hog and grazing cattle are excluded by law from most of our cut-over and second growth forests, the only enemy we have to combat is fire. It has been well said that fire prevention is 85 per cent of forestry.

"There are two ways in which the State can take the lead in this work. First, by adequately doing its fair part in the actual work on the ground, by providing adequate funds, and by employing leaders and conducting supervision and inspection. In the second place the State should provide through its general assembly for proper cooperation from landowners and local authorities. This should not be left optional but should be considered one of the duties required by the law."

"Fire suppression is only an expedient while fire prevention is the ultimate goal. In order to secure permanent protection the cooperation of all parties must be secured. Education, therefore, and publicity are the chief means to this end. **** Education and publicity is the only way to convert the public from carelessness to carefulness. The major activities of the State Forest Service so far as forest protection is concerned are, in the order of their importance: education,

fire suppression, law enforcement. Though placed separately and third in the list of importance, law enforcement is looked upon by the forest officers principally as an educational measure. This I feel is the right attitude, for while most people can be convinced by reason a few can only be reached by force.

"It is my very earnest desire to see this work of forest protection extended over the whole State. Certainly one-half and probably three-fourths of the 100 counties in this State should take definite and constructive steps to protect their forest resources. Fifty per cent of the area of the average farm in North Carolina is woodland, so that the farmers are particularly interested in this work. I should like to see printed and put into force in this State some plan whereby one-half the total cost of forest fire prevention should be paid by local people, the landowners, wood-users, and county officials cooperating, the former contributing either on an acreage basis or preferably through taxation on a valuation basis. The other one-half of the cost should be borne by the State, the Federal Government cooperating. This would, I think, be preferable to the plan now being worked in some States whereby the local people pay all costs of fire suppression and the State assisted by the Federal Government pays all overhead expenses and cost of education and publicity.

"The difficulty of having cooperation optional with the counties and landowners is that should cooperation cease at any time and protection be abandoned even for a few months, the whole work of years might very well be wasted. For this reason it seems to me most important that the work be put on a permanent basis, either supported entirely by State appropriations or which is much more equitable, the local people who, of course, are the most interested being required to bear their fair share of the costs of protecting their own timber of the timber of their county."

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Pennsylvania's primary forest fire tower system now includes 114 lookout points, of which 110 are steel towers. The State owns all but four of these. One belongs to the U. S. Forest Service, one to a railroad, and one to a coal company.

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A survey of the forestry situation in Arkansas, preparatory to cooperation provided for by Section 1 of the Clarke-McNary Law, is to be launched in the first half of November. The Arkansas Soft Pine Bureau will assist the representative of the U. S. Forest Service in the conduct of this survey.

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Planting Plans and Performance in Pennsylvania

The planting of some eight million forest trees in Pennsylvania this spring failed to satisfy the department of forests and waters of that State. The department complains that at the present rate three centuries will pass by before all the idle forest land in Penn's Woods is brought back to productivity. Its ambition is to have 5,000 private land owners planting 20,000,000 forest trees annually by 1930. The number available for distribution next year is 9,623,000.

Governor Pinchot in his fall Arbor Day proclamation stated that Pennsylvania has planted more than 35,000,000 trees on its State forests, and during the last 15 years has distributed more than 40,000,000 forest trees to private landowners of the State.

In connection with its forest tree distribution the Pennsylvania Department of Forests and Waters has published several very attractive illustrated leaflets. "Plant Forest Trees on Idle Acres," Circular 28, explains why it is necessary to plant forest trees, where they may be obtained, and how they should be planted, and includes 12 photographs illustrating planting methods. "Forest Tree Planting Recommendations," Circular 29, gives general advice in regard to choosing species for different purposes and soil conditions. "Forest Trees to Plant," Circular 31, describes rather fully the growth characteristics of the different species offered for distribution, their uses, their susceptibility to disease and insect attacks, etc., and states the conditions under which the department distributes seedlings and transplants without charge except for transportation.

EDUCATION

Four-Year Course at Louisiana State University

The University of Louisiana this year offers for the first time a four-year course leading to the B. S. degree in forestry. Heretofore it has offered no advanced work in forestry, although general courses have for many years been conducted by Prof. Jordan G. Lee, now head of the departments of forestry and horticulture. G. D. Marckworth, formerly assistant State forester in charge of forest fire prevention work in Maryland, has been appointed to the position of assistant professor of forestry. A movement is on foot among southern lumbermen to endow a chair of forestry in the university.

The forest school occupies rooms in the splendid new \$5,000,000 plant of the university, south of Baton Rouge.

A feature favorable to the establishment of a forest school in Louisiana is the opportunity to make use of the unique and extensive forestry demonstrations at Urania on land belonging to Henry Hardtner. Another is the laboratory facilities provided by the Great Southern Lumber Co. in its plant at Bogalusa and in its pine plantations, which are being increased this winter by 6,000 acres.

The course announced emphasizes timber production and utilization rather than engineering problems, giving an important place to the utilization of cut-over lands for farming and grazing and their reforestation. Attendance at two summer forest camps of six weeks each is required.

In establishing this school the University of Louisiana undertook to meet the very definite need for another forest school in the South, where southern forest conditions could be given special study and southern boys attracted to the profession of forestry. It is felt that the South will be well served by the two forest schools of the Universities of Georgia and Louisiana.

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The economics of range cattle production are to be the subject of a special study by the New Mexico State College. Data on the supplemental feeding of range cattle during periods of drought will be obtained on a part of the range included in the Jornada National Forest.

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More Forestry at the University of Minnesota

The appointment of Dr. Henry Schmitz to head the division of forestry of the College of Agriculture, University of Minnesota, is the first step in a plan for the reorganization and development of the forestry work of the college. The university realizes that a large number of trained foresters and a great deal of fundamental research are needed for the solution of the forest problems of Minnesota. The development of the pulp and paper industry, for example, has greatly changed the forestry situation of the State, and the further growth of this industry with its almost unlimited possibilities for the utilization of second-growth timber and of species formerly classed as inferior presents unusual problems in silviculture and management.

The university now has a forest experiment station at Cloquet, where it is cooperating with the Lake States Experiment Station of the U. S. Forest Service, and is carrying on research in forest biology at a station at Itsaca Park. The forestry division of the university also has the use of nearly 400,000 acres of forest lands controlled by the State forest department.

Plans now under consideration by the university would allow the individual members of the faculty more time for investigation and research. It is hoped, also, to establish in the near future a number of additional research fellowships for graduate students.

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New Courses at Syracuse

A course in timber preservation is offered by the New York State College of Forestry this year. Prof. Reuben W. Smith, at one time a member of the technical staff of the Forest Products Laboratory and recently chief treating engineer of the St. Helen's Creosoting Co., St. Helen's, Oreg., is in charge.

A course in nature study has also been added to the curriculum of the forest school. This is open to all students of the university. It is given by Dr. William G. Vinal, newly-appointed Professor of Forest Extension. Dr. Vinal goes to Syracuse from the Rhode Island College of Education, where he has been teaching biology. He is the author of a number of publications on botany, camping, and nature study, and has been a nature guide for the U. S. Government at Yosemite National Park.

California Changes Forestry Course

The Forestry School of the University of California has made a change in its curricula. Until this year it offered a "general forestry" course which permitted specialization in grazing and range management and a "forest utilization" course intended for students who desired to specialize in logging engineering or forest products engineering. Now it has but one curriculum, which permits specialization in pure forestry or grazing, and students wishing to prepare themselves for some engineering phase of lumbering or forest products utilization are enrolled in the College of Mechanical Engineering with forestry as their minor subject. The individual courses of the division of forestry, including those concerned with lumbering and forest products, remain unchanged.

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A School Woodland

Nature study and conservation classes in the public schools of New Rochelle, N. Y., are to have exclusive use of 115 acres of woodland. Miss Katherine Dolbear, director of elementary science courses in these schools, has persuaded the Westchester County Park Commission to make this provision. School children planted more than 2,000 trees in the tract last spring, and classes are now making maps of the area and an inventory of its resources. It is planned to remove vegetation from a portion of the woods, which the children will visit after hard rainstorms in order to study erosion.

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A Forest for Boy Scouts

A troupe of Boy Scouts at Madison, Wis., are to have a forest for their own use. The regents of the University of Wisconsin have set aside a tract of wooded land belonging to the university for development exclusively by the scouts. The dean of the agricultural department of the university has selected a committee to advise the Boy Scouts forest committee, and the forester at the head of this advisory committee has drawn up a 10-year plan for the use and development of the forest. The scouts will construct trails, fire lines, picnic and camp grounds, signal towers, and bridges, and will carry on reforestation work, improvement thinnings, and studies of tree growth.

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Boys Enlist Against Forest Fires

The Bracket H Ranch in the Chelan National Forest is an outdoor summer school where boys learn to ride, camp, and take care of themselves in the outdoors. This summer Junior Forester Maclay of the Chelan Forest organized the 40 boys attending the school into a junior forest league. He spent a day teaching them something about forestry, with emphasis on care in the use of fire in the woods, and showing them how to build a safe and practical fireplace. On the second day each of the boys built a camp fire and was graded by three judges on his success in choosing a location and in preparing and building the fire and putting it out. Out of the 40 boys only one failed. Five were given a grade of 100 per cent. The builder of the safest and most useful camp fire was presented with a Boy Scout ax. All who passed took the oath of membership in the junior forest league and were given commissions as junior forest scouts. In the oath of membership each scout pledged himself not only to practice care in using fire in the woods but to teach others to do so. The commissions, decorated with bright red seals, were signed by the supervisor of the Chelan Forest.

The fact that Mr. Maclay's idea worked out so well should carry a suggestion for other outdoor boys' schools located near national forests.

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The Honorary Arkansas Forestry Association is considering how its appeal for increased interest in the conservation of the forests of the State can be extended to school children and college students. It plans within a few months to arrange for essay-writing contests in the schools and colleges, assigning subjects as follows: rural schools, "What can forestry do for the farmer?"; high schools, "What is the condition of forests in our county and what can be done to save them?"; colleges, "What do forests mean to Arkansas and how can we save them?" The terms of the contests would require that each essay be read before the school in which it originates, and that prize essays be published in the county papers of each county.

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FOREST SERVICE NOTES

"Blanket Lightning"

By Harry Lee Baker, U. S. Forest Service

Stories sent in from the districts this season about lightning bolts which jumped from tree to tree--"three-tree lightning"--recall a phenomenon which occurred in 1921 on the Coeur d'Alene Forest, just over the divide from the Cabinet. At least 28 trees of pole size were struck by lightning at one time. Practically all needles were burned off the upper third of the entire hemlock crown cover. The branches were as black as ink--in about the same condition as would have prevailed if the needles had been burned off with a blow torch. The lower third of the crowns remained green. Varied degrees of singeing occurred throughout the middle third of the crowns. The branches or trunks of the trees were not shattered in the least. There appeared to be no evidence to support the theory that a single tree trunk had served as a lightning conductor to the ground. On an average, as I remember, the trees stood about 5 feet apart. The spacing, of course, was much greater in a few cases. In the center of these larger openings the duff covering seemed to have ignited first. The rain which must have been falling when the fires first started apparently caused them to smolder and helped to preserve the evidence. While I was not so certain about this part of the evidence, I could find nothing to indicate that the fires started at the bases of the trees.

The only theory that I have ever been able to advance is that the amperage was sufficient to charge the atmosphere over an area approximately 30 feet in diameter. The hemlock trees may have been very poor conductors. Possibly the conductive capacity of the trees was sufficiently low to cause the lightning to decide that the air was the line of least resistance. I have imagined that the lightning traveled as a blanket through the tree tops direct to the ground, refusing to use the trees as conductors.

Similar pranks were played by Mr. Lightning at two other points not far distant but, as I recollect, only three trees in one case and five trees in the other were singed by this peculiar kind of lightning.

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Fur Farms in Alaskan National Forests

By C. H. Squire, U. S. Forest Service

The growing of fur-bearing animals, particularly foxes, has come to be an important industry in the national forests of Alaska. Its development there is favored both by climatic conditions and by the presence of the desired kinds of food.

The fur farmers usually try to locate near a salmon cannery. During the canning season great quantities of fish heads can be obtained from the canneries free of charge. These are in some instances cooked with a cereal and baked into a sort of loaf which is fed to the animals every other day during the summer months, less frequently in the spring and fall, and once every five days in the winter. Sometimes the fish heads are partially cured and fed in that condition.

A large number of islands included within the boundaries of the Alaskan forests are peculiarly adapted to fox growing, because of their admirable denning grounds. Also their isolation, which makes it possible to give the foxes a great deal of freedom, and yet prevents escape, was formerly believed to be an advantage. It has been found, however, that the animals can be raised satisfactorily in captivity. Captive animals are more easily fed and, of course, are much more easily protected against poachers.

In 1921 the Secretary of Agriculture, on the advice of the Forester and the Chief of the Bureau of Biological Survey, adopted a set of special instructions for handling fur farms in the Alaskan national forests and in lands in Alaska over which the Biological Survey exercises control. At the close of 1924, permits authorizing the use of islands and small tracts on the mainland of the two Alaskan forests for this purpose numbered 192. So far, the enterprise has been largely one of raising animals for breeding purposes, but the time has now arrived when success in the production of pelts is to be looked for. The industry presents a good many uncertain factors, including the caprices of fashion, but those now engaged in it in Alaska seem to be quite confident of profitable results.

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The Airplane Does its Bit in Fire Control

Nine Army airplanes gave important assistance this summer in the protection of national forests against fire. They were borrowed by the Forest Service for a period of 10 weeks. One officer was detailed by the Air Service. Pilots and mechanics of the Air Service Reserve were employed by the Forest Service, and forest officers acted as observers.

Periodic patrol was not maintained except in one forest where it was used in suppressing an outbreak of incendiarism. After a series of reconnaissance flights to familiarize the pilots and observers with their territory, the planes were held in readiness for detection flights after lightning storms and to answer calls by forest units or protective agencies. They were called out for the reconnaissance of going fires, for confirmation of unreliable fire reports, and for observation flights when the atmosphere was too smoky for good detection from lookouts.

Experience in fighting this season's fires on the Santa Barbara and Sierra Forests has left forest officers of the California District convinced of the extreme effectiveness of aircraft in fighting large going fires. After taking a good look at a Santa Barbara fire from the air the officer in charge was so sure of the situation that he proceeded to give his orders without waiting for any report from the men on the ground. In this instance a plane was also used to transport emergency telephone wire and other fire-fighting supplies over the mountain.

The two planes using Spokane as a base made 83 flights during the season, reported 12 fires ahead of the ground lookouts, scouted 66 fires, and dropped 150 messages of which only 2 failed to reach their mark. Because of the scarcity of emergency landing fields in the Kootenai, Pend Oreille, and Kaniksu Forests, these planes in most instances returned to Spokane without landing. This meant unbroken flights of from 300 to 400 miles. They flew over the roughest of mountain country and in all kinds of weather and atmospheric conditions-- sometimes, for example, encountering columns of heated air over the fires which would raise them vertically for hundreds of feet, having the opposite effect to the ordinary "air pocket" or "hole." Yet in 400 hours of flying not a single injury occurred to men or equipment.

Forest officers report that they find flying an extraordinary help in getting acquainted with their terrain. The supervisor of the Chelan Forest expressed the wish that every man in his force could take a flight for the sake of such a new conception of the country for which he was responsible. In scouting fires the best results were obtained by local forest officers who had had previous air patrol experience. One of the districts in which planes were used has already suggested that hereafter picked forest officers should be given special training as aerial observers.

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Metal for Wood in Aircraft?

By John B. Cuno, U. S. Forest Service

"Metal's the thing for aircraft! Goin' to do away with wood altogether pretty soon."

The "pretty soon" of this pseudo-aeronaut's statement has been repeated over and over in the last five years, but the time for complete replacement never seems to arrive. True, steel tubing is gradually replacing wooden parts in fuselages; but the bulk of the average plane is still wood.

Why is this replacement so slow? First of all and chief of all, metal is more expensive than wood; second, repairs to damaged metal parts can be made only with difficulty; and third, aluminum and aluminum alloys weaken and fall apart through internal decomposition. The best scientific thought has as yet been unable to find a way to prevent this corrosion in aluminum and aluminum alloys. In salt water and in a salty atmosphere the corrosion is particularly rapid. Duralumin tail-spars supported with balsa strips, wrapped in fabric, and exposed to a salt-water atmosphere--an ideal condition for corrosion--were rendered useless in less than a year.

The substitution of metal for wood in aircraft will probably take the course of the substitution of metal for wood in freight cars. Belief used to be current that the all-metal freight car was to be the "last word" in railroad construction. But not only was the all-metal freight car expensive; it flaked away in large red-brown scales of rust. It was also almost impossible to repair when damaged. The test of actual use led to the development of the combination wood and metal freight car, a superior product.

Metal may be "the thing for aircraft"; but it is not replacing wood as rapidly as is generally believed, nor is it probable that the substitution will ever be complete.

Twenty Years of National Forest Timber Sales

For the first time in the history of the Forest Service, timber sales receipts for a quarter-year have exceeded a million dollars. The exact figure for the quarter ending September 30, 1925, was \$1,081,695.43. This follows a similar breaking of all previous records in the last quarter of the fiscal year 1925 (April-June, 1925), when sales brought in \$937,000.

Every one of the eight forest districts showed, in the period July-September, 1925, a substantial increase in sales over the same quarter of the preceding year.

June 30, 1925, ended the twentieth full fiscal year of Forest Service control of the national forests. It seems an appropriate time to take note of the growth of business under Forest Service management. Sales expanded rapidly and progressively during the fiscal decade 1906-1915, aggregating \$1,167,389 during the last as compared with \$202,470 during the first year of the 10-year period. During the second decade every kind of authorized timber use, except free use, more than doubled in volume and returns as compared with the first decade, while timber trespass, or unauthorized use, decreased 52.5 per cent. The whole story appears in the following summary comparison of the first two decades under Forest Service control:

	First decade, F.Y. 1906- 1915, incl.	Second decade, F.Y. 1916- 1925, incl.	Per cent of increase or decrease from first decade
Number of sales	54,781	127,410	+ 132.6
Amount cut under sales (M feet)	3,952,277	8,277,367	+ 109.4
Contract value of cut under sales	\$8,231,135	\$19,745,983	+ 139.9
Receipts:			
(a) Timber sales and settlement ^{1/}	\$8,789,525	\$20,249,229	+ 130.4
(b) Timber trespass	353,571	167,817	- 52.5
Free use:			
(a) Number of users	313,750	379,768	- 21.0
(b) Amount cut (M feet)	1,041,101	1,008,639	
(c) Estimated value	\$1,589,840	\$1,203,399	- 24.3

^{1/} Not including receipts from turpentine sales. These amounted to \$135,640 in the second decade and, according to the incomplete data available, to about half that figure in the first.

More Used Boxes Used Again

A recent survey by the Forest Products Laboratory shows that in certain parts of the country the used box industry is growing in importance. In New York City there are approximately 140 dealers in secondhand containers. One dealer there uses about six carloads of lumber each year just for recovering used boxes. The Wisconsin Immigration Commissioner reports that the used box business in 16 years growth has reached large proportions in that State. The Ford Motor Co. has a factory at its Highland Park plant devoted exclusively to salvaging lumber from boxes, barrels, and crates and converting it into shipping containers, etc. During January of this year this factory turned out a total of 189,950 containers, together with numerous specially shaped blocks and various small pieces made from salvaged lumber.

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Fire Warnings With a Pound of Tea

Fire warnings are reaching the public these days through many unofficial channels. The Liggett and Myers Co., the R. J. Reynolds Co., and several other manufacturers of cigarettes are including fire warning slips in each package of their goods destined for certain States whose officials have requested such cooperation. The Western Auto Supply Co. headquarters at Los Angeles, in cooperation with the Forest Service, during a two-week period this summer featured in all of its 126 stores west of Denver a prevent-forest-fires display including certain automobile and camping accessories designed to lessen fire danger. In addition, this company distributed mats and publicity to 100 western newspapers. The Chamber of Commerce of Klamath, Oreg., is following up a cigarette drive of last year by requesting the leading national manufacturers of picnic goods to include fire warning slips in their products next summer. And the Clason Map Co. of Denver, following out a suggestion of the North Pacific District Office of the U. S. Forest Service, is now using the service anti-fire slogan not only on the inside front page of its new touring atlas but on all its State maps, which are printed at the rate of 10,000,000 a year.

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CENTRAL FOREST NEWS

Saving Redwood in Mississippi Mills

The Finkbine Lumber Co., with large sawmills at D'Ile and Wiggins, Miss., have tried out an interesting experiment. They own large holdings of redwood in California, and this summer they shipped to Mississippi a carload of logs which were successfully sawed out. The present plan of the company, it is reported, is to run their mills on redwood logs when in the course of from two to four years their supply of virgin longleaf is cut out. The larger trees will be quartered and the logs transported by water through the Panama Canal to Gulfport, then by a short haul over the Gulf and Ship Island Railroad to the mills. Factors which favor this procedure are the large investment in the present plants, the advantage of water transportation, and, according to the company, the fact that the lumber can be placed on the northern market in shorter time by virtue of the more rapid air drying of lumber in the South than on the Pacific Coast.

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Blister Rust Reaches Out Toward Oregon Sugar Pine

White pine blister rust was recently discovered in Oregon, for the first time, by agents of the Bureau of Plant Industry. It made its appearance at Pacific City, 80 miles south of the mouth of the Columbia River, in Tillamook County, and at Knappa, Clatsop County. This infection is within 125 miles of the northern edge of the great sugar-pine forests of southern Oregon and California.

S. B. Detweiler, in charge of the office of blister rust control of the Bureau of Plant Industry, has recently returned from an extended inspection tour of the 17 States in which cooperative blister-rust control work is in progress, and reports that control activities are making rapid headway. He states that the recent advances of the rust were inevitable, and that the spread of the infection, though it will continue until it has reached the limits of white-pine growth, can be materially slowed down.

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American Forest Week Committee Gets Busy

The American Forest Week Committee met in Washington September 28. Hon. Frank O. Lowden presided and 39 persons were present. From the size of this group and the number of favorable letters sent in by persons unable to attend the meeting, it appears that at least 100 organizations will take an active part in the 1926 observance of American Forest Week.

At this meeting a more permanent form of organization was evolved. Mr. Lowden continues as chairman. Those to serve with him as directors are Mrs. John D. Sherman, General Federation of Women's Clubs; O. H. Butler, American Forestry Association; Arthur Ringland, National Conference on Outdoor Recreation; Wilson Compton, National Lumber Manufacturers Association; R. S. Kellogg, National Forestry Program Committee; Elbert H. Baker, American Newspaper Publishers Association; Alton J. Hager, Order of Hoo-Hoo and Friends of the Forest; Robert Y. Stuart, Pennsylvania Department of Forests and Waters; and W. B. Greeley, Chief of the U. S. Forest Service. The executive committee consists of R. S. Kellogg, Mrs. Sherman, Elbert H. Baker, Wilson Compton, and W. B. Greeley. Arthur Ringland is treasurer, Edgar P. Allen managing director, and Miller Hamilton secretary.

It was agreed to cooperate with Canada, and to appoint State committees and State chairmen. The board of directors was authorized to choose the date of the 1926 week, those present strongly favoring a date in the latter part of April.

Membership on the committee is open to any organization interested in forestry and kindred subjects, except firms, corporations, and associations operated for profit, and carries no financial responsibility. All activities are on a voluntary basis.

As a result of this meeting the committee holds a much stronger position than in its preparations for American Forest Week of 1925. With its earlier start, and with a board of directors representing such diversified forestry interests, the 1926 campaign should make a record.

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The "coals to Newcastle" paradox was matched this summer by the news that forces of workmen were pumping water into ditches in Dismal Swamp, to control fires smouldering in the dry bogs and underbrush there. A dense mantle of smoke from the Dismal Swamp fires enveloped Norfolk and other Hampton Roads cities and towns and extended far to sea.

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Another Invention of "Les Americains"

A bulletin of the Central Belgian Forestry Society for July tells the following story:

"Under a trade name the Americans have put on the market a construction material consisting of a sheet of wood covered on one or both sides with a thin sheet of steel; by a chemical process, wood and metal are soldered together firmly. In place of steel, tin or zinc is sometimes used.

"This material has the advantage over wood of being fireproof and impervious to decay.

"Over metal plates, it has the advantage of lightness for equivalent strength and it is a poor conductor of heat. A sheet of the material one-fourth inch thick is as strong as a metal plate thinner by half but weighs four times less. The product can be sawed and cut like thin metal plates. It holds nails well and is adapted to drilling and soldering.

"It is adapted to the manufacture of fireproof panels for doors, partitions, fixtures, vehicles, etc."

Has any of our readers seen this wonderful amalgam of wood and metal?

Coal Corporation Decides to Grow its Own

Increasing scarcity and mounting prices of lumber, due to depletion of nearby supplies of timber, have induced a large coal-mining corporation in Pennsylvania to adopt a timber-growing policy. It has established three company forests, totalling 26,000 acres, each in charge of a ranger or warden. Fire protection plans have been worked out, and a fire tower erected. Roads and trails have been built in such a way that they can be used in logging as well as for fire patrol and transportation of fire crews. The tracts are logged carefully so as to save young trees of all valuable species.

In making its plans the company estimated the amount of timber that would be needed annually for mine props, ties, drift timber, tippie timber, mine car lumber, repairs, and other purposes--the figure being about 5,500,000 board feet--and organized its timber-growing project with the idea of insuring a steady supply to meet this consumption for a period of from 100 to 300 years, the estimated life of the mining operation. The plans contemplate restocking at least 4,000 acres denuded by burning; and it is expected that if planting of the barren areas is successful the lands will produce something like 15,000,000 board feet annually.

A Private Reforestation Program in the Pacific Northwest

The Long-Bell Lumber Co. has adopted a five-year program of reforestation for its timberlands in the State of Washington. This company has for two years had the services of a forester and is already maintaining several forest reserves in the South.

After clear cutting of the old growth stands of Douglas fir the company plans to burn over once, in the spring where possible, and then to keep fire out and wait two years for natural restocking of the more favorable sites before planting artificially. On the less favorable sites experimental planting will be begun at once. A site near Riderwood has been selected for a nursery of from 10 to 15 acres, which is expected to be ready for a first planting in the spring of 1926 and to produce good planting stock from the seed bed, without much early transplanting.

The company intends to experiment with several species which at present are not commercially important in Washington but which promise to be of great value there in the future. Among these strangers are redwood, bigtree, Port Orford cedar, and white pine. Small plantings of all these species except bigtree are now under observation at Riderwood.

A Cigarette Caught in the Act

Forty days labor and thirty acres of timber lost and Mr. Abandoned Cigarette proved guilty by an eyewitness, reports District Patrolman B. P. Ford, Cocke County, Tenn.:

"On Sunday, August 30, a girl about 8 years old was passing along a road on Johns Mountain in my district. She noticed a cigarette stub smoldering in the leaves by the roadside but passed on by it. When she had gone but about 20 steps she was attracted by a noise which she thought was an automobile approaching from the rear. Upon looking around she discovered that the smoldering cigarette stub had set a fire to the leaves which was spreading rapidly. She ran to a house nearby and reported the fire. The man of the house hurried back to it but found that he was unable to control the fire by himself. He thereupon rushed to a church not far from the scene of the fire and called for assistance. About 40 men and boys who were attending church responded. Most of the volunteers fought the fire until 11 o'clock that night when it was finally extinguished. The fire burned about 30 acres of land."

FOREIGN NOTES

Cedars in Morocco

Just now foresters, like ordinary people, are probably more interested in Riffs in Morocco than in cedars there. Still cedars 55 meters tall and 110 centimeters in diameter are worth mention. Cedars of this or nearly equal size are numerous in the forests of Sidi M'Guild and Kissarit, according to a correspondent of the Dendrological Society of France.

In the forests of the Middle Atlas, Moroccan cedar (Cedrus Atlantica) appears at elevations of 1,500 meters in mixture with Holme oak, begins to dominate the forest at 1,700 meters, and forms pure stands above 1,800 meters. It prefers north and northeast exposures. It is a light-demanding tree, though it requires partial shade up to the seventh or eighth year. In heavy stands the stem is straight and clean.

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Cedars in Lebanon

Ever since Solomon sent 30,000 men to cut them, the cedars of Lebanon have had a powerful attraction for the tourist and the visiting scientist, and many descriptions of the famous trees are in print, remarkable chiefly for their apparent inaccuracy in regard to sizes, distribution, and number of the trees. It is a wonder any were left at all with a fresh crew of 10,000 in the woods every month; for Solomon split his 30,000 into three shifts and put them on the job in relays. Considering that they had to get out timber enough for only a couple of buildings, the men must have dug the trees up with their finger nails and gnawed them into logs with their teeth.

In a recent report through the French inspector of agriculture in Syria, Assad Younes, former director of agriculture in Lebanon says:

"The accounts of travellers and the scientific notes written by tourists mention only a grove of about 400 trees (in the valley of Kadicha, near Becharri). The truth is that this species has a much wider distribution--an inspection made in 1922 revealed the

existence of several thousand cedars in the woods of Akkar in the northern extremity of Lebanon, scattered among stands of Abies and Juniperus. Another more important group of cedars, covering over 400 acres and containing about 70,000 trees, is situated on the mountain of Hadeth and de Tannourine. These trees are 'exploited' regularly to supply building timber for some twenty neighboring communities."

The report goes on to explain that the trees are cut in such a way as to have the appearance of candelabra with 5, 10, and 15 branches. The cutting off of the cedars causes the horizontal branches to turn upward into a vertical position. At the end of 20 years these vertical branches reach a diameter of 25 to 30 centimeters and are ready for another cut.

A third group of cedars of equal importance is situated about 30 kilometers southeast of Beyrouth. The inhabitants call these trees "obboe," which may be the reason they have not been recognized although botanically the same as the other groups of cedars.

M. Assad-Younes mentions a young planted cedar which at the end of 15 years had grown to a height of 13 meters and a circumference of 70 centimeters.

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On the Centenary of the French School of Forestry at Nancy

The centenary of the French forestry school at Nancy, celebrated during the past summer, has roused the Journal Forestier Suisse to this tribute to their French colleagues:

"The teaching of forestry at Nancy has demonstrated a remarkable unity of doctrine on the treatment of forests. One does not find there, as in other countries, the traces of fugitive vogues for such and such methods of cutting based on speculations that have nothing to do with the laws of nature, and which sooner or later miserably fail. The silviculturists who have taught at Nancy have not believed it possible to correct the laws by which forests grow. It has sufficed to learn to scrutinize these laws and to teach foresters how to conform to them in order to draw from the forest its highest yield. The fine maxim of Parade, true a century ago, will remain true forever: 'To imitate nature, to hasten her work, is the fundamental maxim of silviculture.'

"If one considers the severe conditions of admission and the excellent preparation required of pupils, one can explain without going any further why the School of Nancy has been able to furnish to France, for a century, a forest personnel of the first order-- a personnel

whose tradition, esprit de corps, love of the forest, and high conception of duty have created those beautifully-managed state and communal forests whose richness rouses the admiration of all who have the good fortune to see them."

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Douglas Fir in the Netherlands

By Richard E. Meadley, Pacific Northwest Forest Experiment Station

A report on Douglas fir in the Netherlands issued last year by the Dutch Forest Experiment Station contains many items of interest to American foresters. The Dutch investigators have found, for example, that the Douglas fir yield is about the same in Holland as on similar sites in Germany, but somewhat less than that obtained in the Pacific Coast regions of the United States. Douglas fir in the Netherlands gives a yield more than double that of Scotch pine, heretofore perhaps the most important timber tree of that country. As a revenue-producing tree it is likely to supersede the Scotch pine.

Apparently the Dutch are not at all backward in adopting new tree species which are better suited to their needs than those they formerly have had. Although the average age of the Douglas fir plantations in Holland is less than 30 years, the "Douglas wood" is already much in demand for posts and mine timbers. For these purposes the Douglas fir is superior to the Scotch pine because the fir wood is stronger. This, the report says, is because in spite of its fast growth the fir has a high percentage of strong "summer" wood, whereas the fast-growing Scotch pine is composed mostly of weak "spring" wood.

The report ends with the prediction that "as a forest tree with an exceedingly big yield and valuable wood, moreover only slightly subject to damage, preserving good soil conditions and easily regenerating, the Douglas fir will prove a valuable acquisition to Dutch forestry."

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Canadian Pulp Exports Decrease

The preliminary report on the pulp and paper industry by the forest products branch of the Dominion Bureau of Statistics states that exports of pulp from Canada fell off 3.9 per cent in quantity in 1924 as compared with 1923. The total production of pulp and paper in 1924 is valued at \$187,274,705, the slight falling off from the 1923 figure, \$188,642,109, being due to the decreased exports of pulp. The total figures give net value for the whole industry, including values

of pulpwood exported, pulp exported, and paper manufactured. The number of mills in operation in 1924 was 115 as compared with 110 in 1923. Of the paper manufactured newsprint made up 80.8 per cent, amounting to 1,388,061 tons valued at \$100,276,903. This was within 100,000 tons of the United States' production of newsprint.

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Unusual Method of Fighting Forest Fire

Water drawn from streams higher up the mountain and thrown by pressure of gravity was used recently in subduing a fire on a Canadian national park in British Columbia. The fire was first attacked with axes and grubbers and a portable pump drawing water from below. It continued to burn strongly in spite of these measures. The fire fighters then determined to use the "head" of two streams that ran down the mountain on either side of the fire. Three small dams were built in each of these streams and six lines of hose were laid diagonally downhill to the fire, connections at the dams being made by ordinary galvanized iron nipples thrust through the walls of the dams. The force of gravity in the drop of 30 or 40 feet from the dams to the fire line was sufficient to send the six streams of water 15 or 20 feet from the nozzle. With these and the water thrown by the portable pump from below, the fire was soon stopped. The gravity lines were kept in operation several days until all danger had passed, thus releasing the portable pump for use elsewhere.

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Enormous timber concessions in Mexico and Central America are held by the Tropical Hardwoods Company, a corporation recently organized in New York. The company will concentrate on the production of mahogany and cedar. The standing timber on its concessions is estimated to have a value of more than \$70,000,000. The one on which development will begin immediately covers a tract of 640,000 acres of Tabascan mahogany. It is reported that the company's entire output for the next two years has been contracted for.

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Low lumber prices in Great Britain are reported to be due in part to the good supplies of Russian wood that are coming forward this season. The Russians have been selling their lumber in keen competition with the Swedish and Finnish producers.

PERSONALS

Tom Gill, assistant chief of the branch of public relations of the Washington office of the Forest Service, will spend the months of November and December in Cuba studying forestry conditions on a project of the Tropical Plant Research Foundation. The investigation, which will cover the eastern end of the island, will then be taken up by Donald M. Matthews, who was forester of the Phillipine Islands for 6 years and who has spent the last 11 years organizing and administering a forest service in British North Borneo.

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Donald Bruce, silviculturist of the Forest Service, has gone on leave in order to take charge of the Washington, D. C., office of a firm of consulting forest engineers.

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Fred B. Merrill has been appointed to the position of State forester of Kentucky. Mr. Merrill, who is a graduate of Cornell University, had several years experience with the Forest Service and has for some time served as a district forester in North Carolina. William E. Jackson, jr., who has been attached to the office of the commissioner of agriculture of Kentucky, will remain in the capacity of assistant State forester.

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Willard R. Hine has taken over the duties of superintendent of the forestry division of the Louisiana Department of Conservation. Ever since his graduation from the Cornell University school of forestry in 1921 Mr. Hine has been connected with the Southern Forest Experiment Station, where he has had charge of field work on a study of southern pine growth and of studies on the effects of forest fires in the South.

A. B. Hastings, formerly assistant State forester of Virginia, has returned to the Forest Service to take the place left vacant by C. R. Tillotson as inspector of Clarke-McNary law cooperation. Mr. Hastings was a member of the organization of Forest Service District 1, engaging chiefly in timber sales work, from 1911 to 1916. In the latter year he became assistant State forester of New Hampshire, where in the absence of the State forester during the War he was in full charge of the State work.

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Harry Lee Baker has returned to the Forest Service to take charge of the investigations authorized by Section 1 of the Clarke-McNary Law concerning permanent and adequate fire protection for the different forest regions. Throughout 10 years experience as ranger, deputy supervisor, and supervisor in Forest Service District 1, Mr. Baker had much to do with forest fire protection. The intensive training of forest guards, now an annual event in the West, was first begun under his direction. Since leaving the service in 1922 he has held positions as secretary of the Eastern Washington Timber Protective Association, district forester in Virginia, and assistant State forester of North Carolina in charge of forest fire protection.

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The position of assistant State forester of Maryland left vacant by G. D. Marckworth, now assistant professor of forestry at the University of Louisiana, has been filled by the appointment of John R. Curry, a junior forester on the Arkansas National Forest.

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S. T. Dana of the Northeastern Forest Experiment Station, who is chairman of the committee on international relations of the Society of American Foresters, is acting as the American representative of the committee arranging for the World's Forestry Congress at Rome in May, 1926.

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William Crosby, of the 1915 class of the Yale Forest School, has resigned from the Philippine Forest Service after 13 years of continuous work in the tropics, and returned to his home in Tacoma, Wash.

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Nathan D. Canterbury has been appointed assistant State forester of Louisiana.

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Chester A. Lee on November 1 takes up the duties of farm forestry specialist of the Colorado Agricultural College. Mr. Lee is a graduate of the Yale School of Forestry, and has been connected with the U. S. Forest Service for 10 years. He leaves a position as technical assistant in the office of the supervisor of the Colorado National Forest.

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Tsi-tung Li, a graduate of the Yale Forest School, left for China this summer to become an instructor in the forestry department of the University of Nanking. Since his graduation in 1923 Mr. Li has continued with his forestry studies at Yale.

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Carl I. Peterson and Tom B. W. Watkins have recently joined the technical staff of the State forestry division of Tennessee. Mr. Peterson has for a number of years served as a district forester in North Carolina, and Mr. Watkins leaves a position in the Kootenai National Forest. Both received their forestry education at Pennsylvania State College.

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D. A. Crocker, a graduate of the Biltmore Forest School and until recently vice-president in charge of woodlands of the Eastern Manufacturing Company of Bangor, Maine, has been appointed forester in the woodlands section of the American Paper and Pulp Association, New York City. Mr. Crocker's first assignment in this position will be two months field work in the northern Lake States, after which he will report on the practicability of insuring the pulp and paper mills of the Lake States a permanent supply of wood from the forest areas of those States.

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Theodore F. Laist, field engineer for the Northern Hemlock and Hardwood Manufacturers' Association, has been selected to head the department of research in retail lumbering at Antioch College, Yellow Springs, Ohio. Mr. Laist is a graduate of Cornell University and a licensed architect.

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Mr. Samuel P. Senior of Bridgeport, Conn., was recently elected director of the Connecticut Forestry Association. Mr. Senior is president of the Fairfield County Forest Protective Association and of the Fairfield County Planning Association.

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ARTICLES, BIBLIOGRAPHIES, AND PUBLICATIONS

Tidestrom's Flora of Utah and Nevada

Many foresters, especially those of the Great Basin region and those interested in ecology and systematic botany, will be glad to know that Ivar Tidestrom's Flora of Utah and Nevada is about to come from the press. Mr. Tidestrom, who is now with the Bureau of Plant Industry, was formerly a member of the Forest Service and still acts as consulting expert of the service in matters of plant identification. The flora has been in preparation for about 20 years. It is believed that its nomenclature and keys will be much above the average in accuracy and usefulness.

Several specialists have cooperated in the making of this book. Mrs. Agnes Chase prepared the grass portion, Dr. C. R. Ball the willow portion, Mr. Glen P. Van Eseltine the Carices, Dr. S. F. Blake the composites, etc. Two ecological discussions of the region covered are given, one by Dr. Shantz dealing with the plains and foothill regions and one by Dr. Sampson dealing with the montane portion of the Great Basin.

This book will be volume 25 of Contributions from the U. S. National Herbarium. It will contain about 635 pages of text, 12 plates, and an ecological map of the region covered. It may be obtained from the Superintendent of Public Documents, Government Printing Office, Washington, D. C.

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